

## Title (en)

INK JET PRINTHEAD CHIP WITH PREDETERMINED MICRO-ELECTROMECHANICAL SYSTEMS HEIGHT

## Title (de)

TINTENSTRAHLDRUCKKOPFCHIP MIT VORBESTIMMTER HÖHE DES MIKRO-ELEKTROMECHANISCHEN SYSTEMS

## Title (fr)

PUCE A TETE D'IMPRESSION A JET D'ENCRE A SYSTEMES MICRO-ELECTROMECHANIQUES DE HAUTEUR PREDETERMINEE

## Publication

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## Application

**EP 02764372 A 20020829**

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- US 18317402 A 20020628

## Abstract (en)

[origin: US2002163559A1] An ink jet printhead chip includes a wafer substrate. A CMOS drive circuitry layer is positioned on the wafer substrate. A plurality of nozzle arrangements is positioned on the wafer substrate and the CMOS drive circuitry layer. Each nozzle arrangement includes nozzle chamber walls and a roof wall that define a nozzle chamber and an ink ejection port defined in the roof wall. A micro-electromechanical actuator is connected to the CMOS drive circuitry layer. The actuator has at least one movable member that is positioned to act on ink in the nozzle chamber to eject the ink from the ink ejection port on receipt of a signal from the drive circuitry layer. The movable member is spaced between 2 microns and 15 microns from the CMOS drive circuitry layer.

## IPC 1-7

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## IPC 8 full level

**B41J 2/135** (2006.01); **B41J 2/14** (2006.01); **B41J 2/155** (2006.01); **B41J 2/16** (2006.01); **B41J 2/175** (2006.01); **B41J 3/42** (2006.01); **B41J 3/44** (2006.01); **B41J 11/00** (2006.01); **B41J 11/70** (2006.01); **B41J 15/04** (2006.01); **B42D 15/10** (2006.01); **G06F 1/16** (2006.01); **G06F 12/08** (2006.01); **G06F 21/00** (2006.01); **G06K 1/12** (2006.01); **G06K 7/10** (2006.01); **G06K 7/14** (2006.01); **G06K 19/00** (2006.01); **G06K 19/06** (2006.01); **G06K 19/073** (2006.01); **G06T 1/20** (2006.01); **G07F 7/08** (2006.01); **G07F 7/12** (2006.01); **G11B 5/127** (2006.01); **G11B 7/0033** (2006.01); **G11B 7/007** (2006.01); **G11C 11/56** (2006.01); **G11C 16/22** (2006.01); **H04L 9/00** (2006.01); **H04N 1/00** (2006.01); **H04N 1/21** (2006.01); **H04N 1/32** (2006.01); **H04N 5/225** (2006.01); **H04N 5/262** (2006.01); **B41J 2/165** (2006.01); **B81B 3/00** (2006.01); **H05K 1/14** (2006.01); **H05K 1/18** (2006.01)

## CPC (source: EP US)

**B41J 2/04** (2013.01 - EP US); **B41J 2/135** (2013.01 - EP US); **B41J 2/14** (2013.01 - EP US); **B41J 2/14427** (2013.01 - EP US); **B41J 2/16** (2013.01 - EP US); **B41J 2/1601** (2013.01 - EP US); **B41J 2/1623** (2013.01 - EP US); **B41J 2/1626** (2013.01 - EP US); **B41J 2/1628** (2013.01 - EP US); **B41J 2/1629** (2013.01 - EP US); **B41J 2/1631** (2013.01 - EP US); **B41J 2/1632** (2013.01 - EP US); **B41J 2/1635** (2013.01 - EP US); **B41J 2/1637** (2013.01 - EP US); **B41J 2/1639** (2013.01 - EP US); **B41J 2/1642** (2013.01 - EP US); **B41J 2/1643** (2013.01 - EP US); **B41J 2/1645** (2013.01 - EP US); **B41J 2/1646** (2013.01 - EP US); **B41J 2/1648** (2013.01 - EP US); **B41J 2/17503** (2013.01 - EP US); **B41J 2/17513** (2013.01 - EP US); **B41J 2/17596** (2013.01 - EP US); **B41J 15/044** (2013.01 - EP US); **B41J 29/02** (2013.01 - EP US); **B42D 25/00** (2014.10 - EP US); **B82Y 30/00** (2013.01 - EP US); **G03B 17/02** (2013.01 - EP US); **G03B 27/02** (2013.01 - EP US); **G06F 1/1626** (2013.01 - EP US); **G06F 12/0866** (2013.01 - EP US); **G06F 21/79** (2013.01 - EP US); **G06F 21/86** (2013.01 - EP US); **G06K 1/121** (2013.01 - EP US); **G06K 7/10722** (2013.01 - EP US); **G06K 7/14** (2013.01 - EP US); **G06K 7/1417** (2013.01 - EP US); **G06K 19/06037** (2013.01 - EP US); **G06K 19/073** (2013.01 - EP US); **G06T 1/20** (2013.01 - EP US); **G06T 3/02** (2024.01 - EP US); **G07F 7/08** (2013.01 - EP US); **G07F 7/086** (2013.01 - EP US); **G07F 7/12** (2013.01 - EP US); **G11C 11/56** (2013.01 - EP US); **G11C 16/22** (2013.01 - EP US); **H01L 23/576** (2013.01 - EP US); **H04N 1/00278** (2013.01 - EP US); **H04N 1/00326** (2013.01 - EP US); **H04N 1/00355** (2013.01 - EP US); **H04N 1/0044** (2013.01 - EP US); **H04N 1/00965** (2013.01 - EP US); **H04N 1/00968** (2013.01 - EP US); **H04N 1/2112** (2013.01 - EP US); **H04N 1/2154** (2013.01 - EP US); **H04N 1/2307** (2013.01 - EP US); **H04N 1/32122** (2013.01 - EP US); **H04N 1/32133** (2013.01 - EP US); **H04N 5/2628** (2013.01 - EP US); **H04N 23/00** (2023.01 - EP US); **H04N 25/00** (2023.01 - EP US); **B41J 2/16585** (2013.01 - EP US); **B41J 2002/041** (2013.01 - EP US); **B41J 2002/14346** (2013.01 - EP US); **B41J 2002/14435** (2013.01 - EP US); **B41J 2002/14443** (2013.01 - EP US); **B41J 2002/14491** (2013.01 - EP US); **B41J 2202/11** (2013.01 - EP US); **B41J 2202/13** (2013.01 - EP US); **B41J 2202/21** (2013.01 - EP US); **B42D 2035/08** (2022.01 - EP); **B42D 2035/34** (2022.01 - EP); **B42D 2035/50** (2022.01 - EP); **G06F 2212/2022** (2013.01 - EP US); **G06F 2221/2129** (2013.01 - EP US); **G09G 2310/0281** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US); **H04N 1/00127** (2013.01 - EP US); **H04N 2101/00** (2013.01 - EP US); **H04N 2201/0008** (2013.01 - EP US); **H04N 2201/0084** (2013.01 - EP US); **H04N 2201/3222** (2013.01 - EP US); **H04N 2201/3242** (2013.01 - EP US); **H04N 2201/3261** (2013.01 - EP US); **H04N 2201/3264** (2013.01 - EP US); **H04N 2201/3269** (2013.01 - EP US); **H04N 2201/3276** (2013.01 - EP US); **H04N 2201/328** (2013.01 - EP US); **H05K 1/14** (2013.01 - EP US); **H05K 1/189** (2013.01 - EP US); **Y10T 29/49401** (2015.01 - EP US)

## C-Set (source: EP US)

**H01L 2924/0002 + H01L 2924/00**

## Citation (search report)

- [X] US 2002015072 A1 20020207 - SILVERBROOK KIA [AU]
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- [A] WO 0232672 A1 20020425 - SILVERBROOK RES PTY LTD [AU], et al
- See also references of WO 2004002745A1

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